

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 095 - 02825 County Tyler District Ellsworth
Quad Porter Falls 7.5' Pad Name Thin Air Field/Pool Name ----
Farm name Clara Suzanne Wallace & Rickie Wallace Well Number Gothic Unit 2H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4375442m Easting 517827m
Landing Point of Curve Northing 4375171.39m Easting 517348.64m
Bottom Hole Northing 4370178m Easting 519070m

Elevation (ft) 1200' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Air - Foam & 4% KCL

Mud - Polymer

Date permit issued 11/3/2022 Date drilling commenced 12/16/2022 Date drilling ceased 4/6/2023
Date completion activities began 5/26/2023 Date completion activities ceased 6/23/2023
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 328' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1660' Void(s) encountered (Y/N) depths No
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED

Reviewed by: [Signature]
10/26/23
04/12/2024

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API 47-095 - 02825 Farm name Clara Suzanne Wallace & Rickie Wallace Well number Gothic Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	28"	20"	125.5'	New	91.59#, J-55	N/A	Y
Surface	17-1/2"	13-3/8"	451'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	3579'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	24940'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7123'		4.7#, P-110		
Packer type and depth set		N/A					

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	259 sx	15.6	1.18	306	0'	8 Hrs.
Surface	Class A	739 sx	15.6	1.20	887	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1202 sx	15.6	1.20	1442	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	4025 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.26 (Tail)	5072	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 24940' MD, 6923' TVD (BHL), 6924' TVD (Deepest Point Drilled) Loggers TD (ft) 24940' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6355'

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

Conductor - 0
 Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface
 Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface
 Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WV Department of Environmental Protection

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED N/A

04/12/2024

API 47-095-02825 Farm name Clara Suzanne Wallace & Rickie Wallace Well number Gothic Unit 2H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

***PLEASE SEE ATTACHED EXHIBIT 1**

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)

***PLEASE SEE ATTACHED EXHIBIT 2**

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Please insert additional pages as applicable.

Smiley 11/2/23
04/12/2024

API 47- 095 - 02825 Farm name Clara Suzanne Wallace & Rickie Wallace Well number Gothic Unit 2H

PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6830' (TOP)	TVD	7360' (TOP) MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole --- _____ psi DURATION OF TEST --- _____ hrs

OPEN FLOW Gas 12395.14 mcfpd Oil 435.76 bpd NGL --- bpd Water 761.62 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	NAME TVD	TVD	MD	MD	

***PLEASE SEE ATTACHED EXHIBIT 3**

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Please insert additional pages as applicable.

Drilling Contractor H & P Drilling
Address 912 N Eagle Valley Rd City Howard State PA Zip 16841

Logging Company Nine Energy Services
Address 6500 West Fwy City Fort Worth State TX Zip 76116

Cementing Company Schlumberger US Land
Address 3600 Briarpark Drive City Houston State TX Zip 77042

Stimulating Company Halliburton
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Please insert additional pages as applicable.

Completed by Stefan Gaspar Telephone 303-357-6959
Signature *Sgaspar* Title Permitting Agent Date 10/13/23

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

Stefan Gaspar
10/13/23
04/12/2024

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	5/26/2023	24813	24769	60	Marcellus
2	5/27/2023	24730.74521	24566.4713	60	Marcellus
3	5/27/2023	24531.21648	24366.9425	60	Marcellus
4	5/27/2023	24331.68774	24167.4138	60	Marcellus
5	5/28/2023	24132.159	23967.8851	60	Marcellus
6	5/28/2023	23932.63027	23768.3563	60	Marcellus
7	5/28/2023	23733.10153	23568.8276	60	Marcellus
8	5/29/2023	23533.5728	23369.2989	60	Marcellus
9	5/29/2023	23334.04406	23169.7701	60	Marcellus
10	5/29/2023	23134.51533	22970.2414	60	Marcellus
11	5/30/2023	22934.98659	22770.7126	60	Marcellus
12	5/30/2023	22735.45785	22571.1839	60	Marcellus
13	5/30/2023	22535.92912	22371.6552	60	Marcellus
14	5/31/2023	22336.40038	22172.1264	60	Marcellus
15	5/31/2023	22136.87165	21972.5977	60	Marcellus
16	5/31/2023	21937.34291	21773.069	60	Marcellus
17	6/1/2023	21737.81418	21573.5402	60	Marcellus
18	6/1/2023	21538.28544	21374.0115	60	Marcellus
19	6/1/2023	21338.7567	21174.4828	60	Marcellus
20	6/2/2023	21139.22797	20974.954	60	Marcellus
21	6/2/2023	20939.69923	20775.4253	60	Marcellus
22	6/2/2023	20740.1705	20575.8966	60	Marcellus
23	6/2/2023	20540.64176	20376.3678	60	Marcellus
24	6/3/2023	20341.11303	20176.8391	60	Marcellus
25	6/3/2023	20141.58429	19977.3103	60	Marcellus
26	6/3/2023	19942.05556	19777.7816	60	Marcellus
27	6/3/2023	19742.52682	19578.2529	60	Marcellus
28	6/3/2023	19542.99808	19378.7241	60	Marcellus
29	6/4/2023	19343.46935	19179.1954	60	Marcellus
30	6/4/2023	19143.94061	18979.6667	60	Marcellus
31	6/4/2023	18944.41188	18780.1379	60	Marcellus
32	6/4/2023	18744.88314	18580.6092	60	Marcellus
33	6/4/2023	18545.35441	18381.0805	60	Marcellus
34	6/4/2023	18345.82567	18181.5517	60	Marcellus
35	6/5/2023	18146.29693	17982.023	60	Marcellus
36	6/5/2023	17946.7682	17782.4943	60	Marcellus
37	6/5/2023	17747.23946	17582.9655	60	Marcellus
38	6/5/2023	17547.71073	17383.4368	60	Marcellus
39	6/5/2023	17348.18199	17183.908	60	Marcellus
40	6/5/2023	17148.65326	16984.3793	60	Marcellus
41	6/6/2023	16949.12452	16784.8506	60	Marcellus
42	6/6/2023	16749.59579	16585.3218	60	Marcellus
43	6/6/2023	16550.06705	16385.7931	60	Marcellus
44	6/6/2023	16350.53831	16186.2644	60	Marcellus
45	6/6/2023	16151.00958	15986.7356	60	Marcellus
46	6/6/2023	15951.48084	15787.2069	60	Marcellus
47	6/7/2023	15751.95211	15587.6782	60	Marcellus
48	6/7/2023	15552.42337	15388.1494	60	Marcellus
49	6/7/2023	15352.89464	15188.6207	60	Marcellus
50	6/7/2023	15153.3659	14989.092	60	Marcellus
51	6/7/2023	14953.83716	14789.5632	60	Marcellus
52	6/7/2023	14754.30843	14590.0345	60	Marcellus
53	6/7/2023	14554.77969	14390.5057	60	Marcellus
54	6/8/2023	14355.25096	14190.977	60	Marcellus
55	6/8/2023	14155.72222	13991.4483	60	Marcellus
56	6/8/2023	13956.19349	13791.9195	60	Marcellus
57	6/8/2023	13756.66475	13592.3908	60	Marcellus
58	6/8/2023	13557.13602	13392.8621	60	Marcellus
59	6/8/2023	13357.60728	13193.3333	60	Marcellus
60	6/9/2023	13158.07854	12993.8046	60	Marcellus
61	6/9/2023	12958.54981	12794.2759	60	Marcellus
62	6/9/2023	12759.02107	12594.7471	60	Marcellus
63	6/9/2023	12559.49234	12395.2184	60	Marcellus
64	6/9/2023	12359.9636	12195.6897	60	Marcellus
65	6/9/2023	12160.43487	11996.1609	60	Marcellus
66	6/9/2023	11960.90613	11796.6322	60	Marcellus
67	6/10/2023	11761.37739	11597.1034	60	Marcellus
68	6/10/2023	11561.84866	11397.5747	60	Marcellus
69	6/10/2023	11362.31992	11198.046	60	Marcellus
70	6/10/2023	11162.79119	10998.5172	60	Marcellus
71	6/10/2023	10963.26245	10798.9885	60	Marcellus
72	6/10/2023	10763.73372	10599.4598	60	Marcellus
73	6/11/2023	10564.20498	10399.931	60	Marcellus
74	6/11/2023	10364.67625	10200.4023	60	Marcellus
75	6/11/2023	10165.14751	10000.8736	60	Marcellus
76	6/11/2023	9965.618774	9801.34483	60	Marcellus
77	6/11/2023	9766.090038	9601.81609	60	Marcellus
78	6/11/2023	9566.561303	9402.28736	60	Marcellus
79	6/11/2023	9367.032567	9202.75862	60	Marcellus
80	6/12/2023	9167.503831	9003.22989	60	Marcellus
81	6/12/2023	8967.975096	8803.70115	60	Marcellus
82	6/12/2023	8768.44636	8604.17241	60	Marcellus
83	6/12/2023	8568.917625	8404.64368	60	Marcellus
84	6/12/2023	8369.388889	8205.11494	60	Marcellus
85	6/12/2023	8169.860153	8005.58621	60	Marcellus
86	6/12/2023	7970.331418	7806.05747	60	Marcellus
87	6/13/2023	7770.802682	7606.52874	60	Marcellus

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EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (Psi)	Breakdown Pressure (Psi)	ISIP (Psi)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	5/26/2023	81.62	10572	7942	4130	174000	6080.1167	N/A
2	5/27/2023	85.68	10537	6454	4247	394750	7849.4031	N/A
3	5/27/2023	87.59821	10520.78	7204.33	4334.758	413770	7725.7981	N/A
4	5/27/2023	89.78322	10411.81	6588.79	3930.874	404400	7275.1557	N/A
5	5/28/2023	89.86	10561	4259	3930	415870	7318.6429	N/A
6	5/28/2023	88.18019	10305.75	6089.6	3823.06	402140	7390.5802	N/A
7	5/28/2023	88.94185	10446.69	6530.35	3736.925	415880	7418.4962	N/A
8	5/29/2023	88.72	10537	6598	3905	416810	7361.1905	N/A
9	5/29/2023	89.98903	10195.26	6025.14	3848.72	416930	7343.1976	N/A
10	5/29/2023	91.44	10507	5914	3830	413950	7337.59	N/A
11	5/30/2023	88.35784	10453.56	4359.72	4084.294	416500	7138.9995	N/A
12	5/30/2023	94.10918	10490.42	5920.76	4099.565	396420	7045.5921	N/A
13	5/30/2023	95.07	10289	6081	4256	401340	7090.2579	N/A
14	5/31/2023	96.55961	10288.21	4761.44	4428.885	413260	7194.0233	N/A
15	5/31/2023	97.08933	10240.67	3791.42	4110.131	393860	7010.0595	N/A
16	5/31/2023	94.88	10173	4190	3904	395910	7116.3119	N/A
17	6/1/2023	97.31	10533	3908	4060	396180	6998.9069	N/A
18	6/1/2023	97.12699	10544.63	5836.34	4307.586	409920	7158.3007	N/A
19	6/1/2023	96.39	10388	5685	4423	413040	7591.0512	N/A
20	6/2/2023	97.10226	10488.48	6200.04	4380.307	417250	7096.315	N/A
21	6/2/2023	91.43	10524	5643	4333	395340	7047.881	N/A
22	6/2/2023	87.95	9615	6046	3861	392390	6820.29	N/A
23	6/2/2023	93.88	10257	5887	4093	397900	6953.8657	N/A
24	6/3/2023	95.4	9881	5640	4516	399800	7249.3081	N/A
25	6/3/2023	97.58064	10011.08	5536.13	4218.27	409570	6960.9819	N/A
26	6/3/2023	97.41	9945	5577	4395	392900	6891.8131	N/A
27	6/3/2023	97.27	9951	5665	4405	392790	6820.5274	N/A
28	6/3/2023	96.81	9968	6016	4156	413020	7177.8419	N/A
29	6/4/2023	95.49	9721	5312	3954	407460	7123.736	N/A
30	6/4/2023	94.71	9697	5648	4064	414518	7125.3383	N/A
31	6/4/2023	97.54666	9964.651	5672.86	4210.489	396660	6955.35	N/A
32	6/4/2023	98.01	9846	5601	3887	410700	7066.1071	N/A
33	6/4/2023	95.73	9520	5701	4006	396040	6844.4905	N/A
34	6/4/2023	96.52	9721	4073	4059	396920	6840.9845	N/A
35	6/5/2023	97	9939	4318	3848	396050	6996.3724	N/A
36	6/5/2023	97.13	9730	5564	3984	393730	6836.816	N/A
37	6/5/2023	98.16	9891	6038	3966	405390	6961.794	N/A
38	6/5/2023	97.98	9939	5508	3994	397330	7046.215	N/A
39	6/5/2023	97.48758	10019.57	6045	3673.223	395900	7090.9205	N/A
40	6/5/2023	96.84	9461	4439	3804	397190	7125.365	N/A
41	6/6/2023	96.96	9642	3640	3540	392030	7062.4033	N/A
42	6/6/2023	97.73	9700	5211	3592	401270	7249.001	N/A
43	6/6/2023	98.37	9560	5884	3769	408180	7038.8345	N/A
44	6/6/2023	97.8	9790	4258	3867	397500	7094.3667	N/A
45	6/6/2023	98.16	9842	5831	3627	398650	7090.855	N/A
46	6/6/2023	97.5096	9605.069	5484.33	3644.438	413660	7226.6433	N/A
47	6/7/2023	97.19199	9566.037	4418.03	3555.589	398850	7059.9574	N/A
48	6/7/2023	97.56294	9533.991	5809.64	3434.795	393100	6840.8595	N/A
49	6/7/2023	98.23	9544	5762	3584	411680	7012.7969	N/A
50	6/7/2023	98.64	9669	6031	3636	392500	6904.9267	N/A
51	6/7/2023	98.17229	9412.633	5967.51	3793.869	395730	6810.0017	N/A
52	6/7/2023	96.90173	9187.957	6020.37	3578.93	412650	7103.775	N/A
53	6/7/2023	97.41182	9321.679	5948.35	3853.164	393230	6859.475	N/A
54	6/8/2023	97.95454	9525.704	5496.97	3606.403	395950	7008.9488	N/A
55	6/8/2023	98.02711	9548.515	6232.16	3789.848	396890	6978.5812	N/A
56	6/8/2023	98.23335	9454.794	6098.8	3576.293	392720	6768.0862	N/A
57	6/8/2023	97.77767	9461.839	5902.13	3597.74	401200	6921.7781	N/A
58	6/8/2023	97.75578	8961.742	5884.31	3775.909	392720	6833.4295	N/A
59	6/8/2023	97.01439	8874.741	6148.1	3897.399	397710	6882.4386	N/A
60	6/9/2023	97.95405	9048.559	5915.89	4071.496	398660	6963.9567	N/A
61	6/9/2023	97.60675	8846.597	6074.78	3879.987	397390	6896.5602	N/A
62	6/9/2023	98.40327	8778.103	5798.93	3707.2	414360	7121.4433	N/A
63	6/9/2023	97.93879	8824.346	5844.14	3871.801	410660	7057.7921	N/A
64	6/9/2023	98.03196	8741.245	6030.26	3920.26	397620	6873.7726	N/A
65	6/9/2023	98.17982	8616.943	5968.5	3897.372	393400	6759.3779	N/A
66	6/9/2023	98.13571	8627.275	7573.42	3767.326	414820	7075.4329	N/A
67	6/10/2023	97.5939	8736.786	6394.15	3894.878	413120	7050.9386	N/A
68	6/10/2023	97.54112	8273.448	5956.37	3686.895	409540	6873.9129	N/A
69	6/10/2023	98.13304	8381.771	5845.98	3895.057	402220	6855.7033	N/A
70	6/10/2023	97.01534	9083.398	6156.95	3624.104	413350	7187.4881	N/A
71	6/10/2023	98.12895	8296.087	6232.35	3850.553	397450	6804.3433	N/A
72	6/10/2023	97.75742	9015.841	5755.67	3896.09	396100	6941.0629	N/A
73	6/11/2023	97.03474	8571.53	5981.11	4063.888	399980	6855.9464	N/A
74	6/11/2023	97.74264	8883.418	5455.69	3911.053	399750	6877.4536	N/A
75	6/11/2023	97.62591	8329.327	6143.46	3780.043	396290	6742.0862	N/A
76	6/11/2023	97.13344	8755.758	6013.21	4115.403	403200	6970.4214	N/A
77	6/11/2023	98.07837	8224.783	6171.31	3935.702	398120	6831.974	N/A
78	6/11/2023	98.14	8959	6149	4051	394730	6734.8431	N/A
79	6/11/2023	97.53417	8774.464	6337.81	3908.484	397100	6921.879	N/A
80	6/12/2023	97.25844	8328.709	6111.23	3839.845	395560	6649.4674	N/A
81	6/12/2023	97.39378	8186.285	6218.75	3912.192	394800	6565.0164	N/A
82	6/12/2023	98.22945	8133.706	6353.83	3767.567	395010	7003.175	N/A
83	6/12/2023	98.21388	8347.307	6416.72	3816.859	391990	6717.815	N/A
84	6/12/2023	98.28	7986	5656	3963	395190	6741.7057	N/A
85	6/12/2023	97.1782	7602.075	4073.44	4218.664	396050	7087.1736	N/A
86	6/12/2023	97.53882	7675.389	5792	4141.902	398240	6648.851	N/A
87	6/13/2023	97.95643	7664.756	4439.89	4003.482	412610	6692.5433	N/A
	AVERAGE	96.0	9,471	5,714	3,935	34,737,368	609,725	0

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Shaly Siltstone, tr LS	91	275	91	275
Sandy Siltstone, Coal	275	335	275	335
Silty Sandstone	335	425	335	425
Shaly Siltstone, occ LS	425	635	425	635
Sandy Siltstone, occ LS	635	965	635	965
Shaly Siltstone, occ SS	965	1,025	965	1,025
Shaly Siltstone	1,025	1,435	1,025	1,435
Sandy Siltstone, occ Shale	1,435	1,525	1,435	1,525
Silty Sandstone, tr coal	1,525	1,615	1,525	1,615
Silty Sandstone, coal, tr shale	1,615	1,735	1,615	1,735
Silty Sandstone, occ shale	1,735	1,885	1,735	1,885
Shaly Sandstone, coal, occ slst	1,885	2,125	1,885	2,125
Silty Sandstone, coal, occ Shale	2,125	2,109	2,125	2,167
Big Lime	2,134	2,905	2,167	2,999
Fifty Foot Sandstone	2,905	2,968	2,974	3,063
Gordon	2,968	3,211	3,038	3,315
Fifth Sandstone	3,211	3,481	3,290	3,595
Bayard	3,481	4,173	3,570	4,321
Speechley	4,173	4,473	4,296	4,637
Balltown	4,473	4,905	4,612	5,085
Bradford	4,905	5,180	5,060	5,370
Benson	5,180	5,399	5,345	5,599
Alexander	5,399	6,665	5,574	6,984
Sycamore	6,524	6,640	6,802	6,959
Middlesex	6,640	6,738	6,959	7,127
Burkett	6,738	6,766	7,127	7,184
Tully	6,766	6,830	7,184	7,360
Marcellus	6,830	NA	7,360	NA

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LATITUDE 39°32'30" 305'

LATITUDE 39°30'00"

8,025' TO BOTTOM HOLE

4,844'

LONGITUDE 80°47'30"

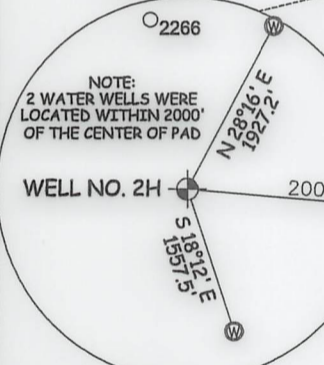
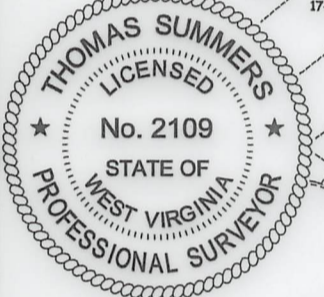
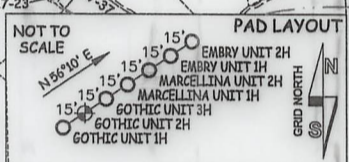
LONGITUDE 80°45'00"

Antero Resources Corporation Well No. Gothic Unit 2H

AS DRILLED DATA:
 WELL 2H TOP HOLE INFORMATION:
 N: 377,177ft E: 1,635,364ft
 LAT: 39°31'42.13" LON: 80°47'33.90"
 BOTTOM HOLE INFORMATION:
 N: 359,837ft E: 1,639,157ft
 LAT: 39°28'51.29" LON: 80°46'42.35"
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD 83 (UTM) ZONE 17 COORDS:
 WELL 2H TOP HOLE INFORMATION:
 N: 4,375,442m E: 517,827m
 BOTTOM HOLE INFORMATION:
 N: 4,370,178m E: 519,070m

(NAD 27 (UTM) ZONE 17 COORDS:
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 N: 14,354,382ft E: 1,698,856ft
 POINT OF ENTRY INFORMATION:
 N: 14,353,718ft E: 1,697,276ft
 BOTTOM HOLE INFORMATION:
 N: 14,337,113ft E: 1,702,936ft



NOTE:
 2 WATER WELLS WERE LOCATED WITHIN 2000' OF THE CENTER OF PAD

- NOTE
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

ELLSWORTH DISTRICT - TYLER COUNTY

11-20	EDWARD QUIRK
11-21	EDWARD QUIRK
11-22	NILE HARRIS
11-59	EDWARD QUIRK
11-60	MICHAEL MARTIN
12-5	ROSALIE HENRY
12-6	ANTERO MIDSTREAM LLC
12-7	COASTAL FOREST RESOURCES CO.
12-8	SHIRLEY CARROLL
12-9	COASTAL FOREST RESOURCES CO.
12-10	MICHAEL MARTIN
12-11	CLARA WALLACE
12-12	ROCKFORD ENERGY LLC
12-13	ERIC FISHER
12-14	ANTERO MIDSTREAM LLC
12-15	PATRICIA NYE
12-16	PATRICIA NYE
12-17	ANTERO MIDSTREAM LLC
12-18	ANTERO MIDSTREAM LLC
12-19	JON DUMARS
12-23	ROBERT BARD
12-32	CARL WILCOX

12-33	RICHARD NEFF
16-13	GAIL NEFF
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17-66	FLOYD EDDY
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17-67.1	CYNTHIA EDDY
17-68	JEREMY NEFF
17-69	LARRY HENTHORN
17-70	DALE RICHMOND
17-71	LARRY HENTHORN
17-72	LARRY HENTHORN
23-6	DALE PARR
23-7	DALE PARR
23-9	DALE PARR
23-10	DALE PARR
23-11	JENNIFER WILLIAMS
23-12	TERRY JOY

MCLEROY DISTRICT - TYLER COUNTY

2-3	LOYD WEEKLEY
2-4	LOYD WEEKLEY
2-5	RONALD WEEKLEY
2-9	ELDEN NICHOLS
2-9.1	RICHARD BLANKENSHIP
2-9.2	WILLIAM LACY
2-9.3	SANDRA TOCHUM
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JOB # 20-011WA
 DRAWING # GOthic2HAD
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS
 STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

LEGEND
 - - - - - Surface Owner Boundary Lines +/-
 - - - - - Interior Surface Tracts +/-
 ○ - - - - - Proposed Well Path
 ⊙ - - - - - As Drilled Well Path
 THOMAS SUMMERS P.S. 2109
 DATE 10/02/23
 OPERATOR'S WELL# GOthic UNIT #2H



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
 WILLOW LAND SURVEYING PLLC
 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ 47 - 095 - 02825
 (IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X STATE COUNTY PERMIT
 LOCATION: ELEVATION 1,200' - AS BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK
 QUADRANGLE PORTER FALLS 7.5' (TH) - SHIRLEY 7.5' (BH) DISTRICT ELLSWORTH COUNTY TYLER
 SURFACE OWNER CLARA SUZANNE WALLACE & RICKIE WALLACE ACREAGE 60 ACRES +/-
 OIL & GAS ROYALTY OWNER PHILLIP K. GEORGE LEASE ACREAGE 60 ACRES +/-

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___
 PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL ___
 (SPECIFY) AS DRILLED PLUG & ABANDON ___ CLEAN OUT & REPLUG ___
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,923' TVD 24,940' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS
 ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAKS BLVD
 DENVER, CO 80202 BRIDGEPORT, WV 26330

04/12/2024

LATITUDE 39°32'30" 305'

LATITUDE 39°30'00"

8,025' TO BOTTOM HOLE

6,952' TO BOTTOM HOLE

LONGITUDE 80°47'30"

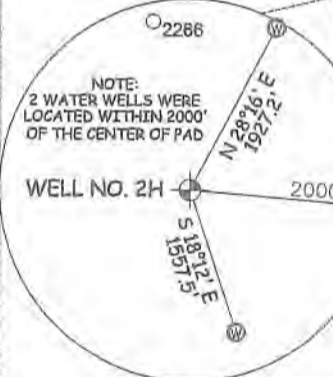
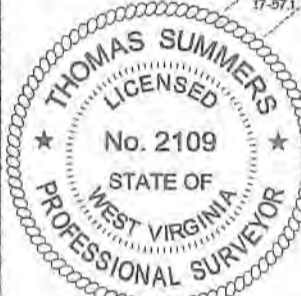
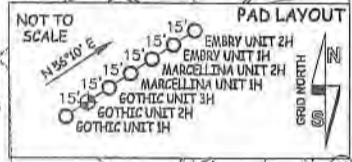
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Interior Surface Tracts +/-
Proposed Well Path
As Drilled Well Path
THOMAS SUMMERS P.S. 2109
DATE 10/02/23
OPERATOR'S WELL# GOthic UNIT #2H



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WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

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TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,923' TVD 24,940' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS
ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAKS BLVD
FORM WW-6 DENVER, CO 80202 BRIDGEPORT, WV 26330

04/12/2024

COUNTY NAME PERMIT

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/26/2023
Job End Date:	6/13/2023
State:	West Virginia
County:	Tyler
API Number:	47-095-02825-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	GOTHIC UNIT 2H
Latitude:	39.52836700
Longitude:	-80.79275000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,968
Total Base Water Volume (gal):	27,221,504
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Produced Water	Halliburton	Base Fluid	Water	7732-18-5	100.00000	86.41980	Density = 8.34
Ingredients	Listed Above	Listed Above	Water	7732-18-5	100.00000	0.17703	

Handwritten initials/signature

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HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
FDP-S1463-22	Halliburton	Friction Reducer					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
FDP-S1464-22	Halliburton	Friction Reducer					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
MC B-8614A	MultiChem	Biocide					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			

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Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.

			Crystalline silica, quartz	14808-60-7	100.00000	13.37250	
			Hydrochloric acid	7647-01-0	30.00000	0.03886	
			Complex amine compound	Proprietary	60.00000	0.03779	
			Hydrotreated distillate	Proprietary	30.00000	0.01889	
			Guar gum	9000-30-0	100.00000	0.00424	
			Ethoxylated alcohol	Proprietary	5.00000	0.00326	
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00326	
			Ammonium chloride	12125-02-9	5.00000	0.00326	
			Glutaraldehyde	111-30-8	30.00000	0.00251	
			Polyacrylate	Proprietary	30.00000	0.00068	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.00068	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00065	
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00065	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00042	
			Methanol	67-56-1	100.00000	0.00024	
			INorganic salt	Proprietary	10.00000	0.00023	
			Ammonium persulfate	7727-54-0	100.00000	0.00009	
			Ethanol	64-17-5	1.00000	0.00008	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	
			Modified thiourea polymer	Proprietary	30.00000	0.00007	
			Oxylated phenolic resin	Proprietary	30.00000	0.00003	
			Propargyl alcohol	107-19-7	5.00000	0.00001	
			Hexadecene	629-73-2	5.00000	0.00001	
			Ethoxylated alcohols	Proprietary	5.00000	0.00001	

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			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	
--	--	--	-----------------------	-----------	---------	---------	--

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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